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(54) Title: METHOD AND APPARATUS FOR THE USE OF [11C] CARBON MONOXIDE IN LABELING SYNTHESIS BY PHOTO-INITIATED CARBONYLATION

(57) Abstract: Methods and reagents for photo-initiated carbonylation with carbon-isotope labeled carbon monoxide using amines and alkyl/aryl iodides are provided. The resultant carbon-isotope labeled amides are useful as radiopharmaceuticals, especially for use in Positron Emission Tomography (PET). Associated kits for PET studies are also provided.